

WHAT IS CLAIMED IS:

1. A bonding apparatus comprising:

a bonding tool for holding a chip;

a substrate stage for mounting a substrate thereon;

5 a moving mechanism for moving said bonding tool and said substrate stage relatively to each other in a horizontal plane;

an up-and-down mechanism for moving up and down said bonding tool; and

10 a chip recognition camera being disposed to be lower than a level of a substrate mounted surface of said substrate stage to thereby recognize said chip held by said bonding tool from a position below said chip so that said chip and said substrate are subjected to positioning on the basis of a recognition result of said chip recognition camera and said
15 bonding tool is moved down to bond said chip onto said substrate;

wherein a lower surface of said chip is recognized by said chip recognition camera when the lower surface of said chip is located substantially on a level with a chip bonding surface of said substrate.

20 2. A bonding apparatus according to claim 1, wherein a position where said chip recognition camera is focused is set to a position which is substantially on a level with the chip bonding surface of said substrate.

3. A bonding apparatus according to claim 1, further
comprising a chip tray for receiving said chip, said chip tray
being located to be lower than the level of the chip bonding
5 surface of said substrate.

10015591 121704